



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/007,841

12/03/2001

Amit Dhir

X-881 US

7622

24309

7590

03/14/2006

XILINX, INC
ATTN: LEGAL DEPARTMENT
2100 LOGIC DR
SAN JOSE, CA 95124

EXAMINER

LIU, JONATHAN

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,841	DHIR ET AL.	
	Examiner	Art Unit	
	Jonathan Liou	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/03/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of claims 1-17 are withdrawn in view of the newly discovered reference(s) to Odom et al. (US Pub No. 2003/0163298.), Zegelin (US Pat No. 6,847,654.), Lee et al. (US Pub 2002/0101848.), Mulligan (US Pat No. 6,212,190.) and Dellmo et al. (US Pub. No. 2002/0094087.) Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Odom et al. (US Pub No. 2003/0163298.), in view of Zegelin (US Pat No. 6,847,654.), and further in view of Lee et al. (US Pub 2002/0101848.)

Regarding claims 1, 7, Odom et al. teach a subsystem for use in a wireless local area networking device (See sec [0172].), comprising: a transceiver (202, Fig. 3B); programmable gates (106, Fig. 3B) coupled to the transceiver; and memory (288, Fig. 3B) coupled to the programmable gates, the memory storing instructions for programming a first portion and second portion of the programmable gateway.(See

Art Unit: 2663

sec[0184].) Odom et al. does not specifically teach programming for a first portion of the programmable gates as a selected one of a first type of a medium access layer and a second type of a medium access layer, the first type of the medium access layer different from the second type of the medium access layer and the second portion of the programmable gates as baseband controller recited in the claim 1. However, Zegelin teach selecting the upper and lower medium access control layers; which both layers are different. The first and second medium is to select to meet the characteristic of the devices (See col 2-3, lines 65-20, Zegelin.) Lee et al. teach baseband controller, which could be the second portion of gateway (See sec [0085], Lee et al.) Since Lee et al. teach the system base on Wlan and Bluetooth (See sec [0008], and Zegelin teach the invention based on the division of the IEEE 802.11 MAC operation into two entities (See col 1, 6-8, Zegelin.), it would have been obvious to one who has ordinary skill in the art at the time the invention was made to implement Eglin's method onto Odom et al.'s structure for programming gate selecting MAC layers and controlling the baseband processor because it would be able to control the RF signal and selecting MAC layer according to different type of device.

Regarding claims 2 and 9, Odom et al. teaches transceiver is coupled to the programmable gates through programmable input/output blocks (See Fig. 3B)

Regarding claim 4, Odom et al. teach a subsystem wherein the transceiver and programmable gates are formed as an integrated circuit (110F, Fig. 3B)

Regarding claim 5, Odom et al. discloses a subsystem wherein the integrated circuit is a Field Programmable Gate Array (See sec [0009], Odom et al.)

Regarding claims 6 and 8, Lee et al. teach the baseband controller are run in and controlled by basedband processor (See sec [0083]-[0086], Lee et al.)

Regarding claim 9, Zegelin teach the data link layer could comprises the logical control and medium access layer (See col 2, lines 22-26, Zegelin.)

3. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Odom et al. (US Pub No. 2003/0163298.), in view of Zegelin (US Pat No. 6,847,654.), in view of Lee et al. (US Pub 2002/0101848.), further in view of Mulligan (US Pat No. 6,212,190.)

Regarding claims 3 and 11, Odem et al., in view of Zegelin, and in view of Lee et al. teach the medium access control layers, and CSMA protocol (See col 2, lines 45-50, Zegelin.) Their structure does not specifically teach the other type of protocol is TDMA. However, Mulligan teach the wireless protocol could be TDMA (See col 1, lines 53-58.) Since TDMA technology is widely used as a protocol in the wireless communication and even IEEE 802 standard, it would have been obvious to one who has ordinary skill in the art at the time the invention was made to select TDMA protocol as a type of medium access control layer in the wireless local area network system.

4. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo et al. (US Pub. No. 2002/0094087.)

Regarding claim 12, Dellmo et al. disclosed a circuit board (Fig. 7), comprising: a field programmable gate array (70, Fig. 7) comprising programmable configuration logic blocks (72, Fig. 7) and programmable input/output blocks coupled to the programmable configuration logic blocks (all of input/out interface and blocks couple to crypto

processor. 70, Fig. 7); a radio coupled to the programmable configuration logic blocks through the programmable input/output blocks (22 antenna is coupled to the programmable configuration logic blocks through input/output blocks. Fig. 7); program/data memory coupled to the programmable configuration logic blocks through the programmable input/output blocks (61, Fig. 7); and an interface transceiver coupled to the programmable configuration logic blocks through the programmable input/output blocks (pcmcia connector 27 is an interface coupled to the programmable configuration logic blocks through programmable input/output. Fig. 7); Dellmo et al. do not specifically teach the program memory comprising programming instructions for the programmable configuration logic blocks to be configured as, a radio interface and controller; a medium access control protocol engine and configuration controller; and a baseband processor interface. However, Dellmo et al. teach the memory for storing the cryptography information, which could be used for control protocol, controller, and interface purpose (See sec [0055], and Fig. 10.) Therefore, it would have been obvious to one who has ordinary skill in the art at the time the invention was made to have a instruction to configure the controller, protocol, interface, and set forth because the system has to be have some kind of instruction to program for FPGA system.

Regarding claims 13-16, Dellmo et al. teach baseband processor could be controlled by cryptography information and cryptography information is stored in the memory (See sec [0046], [0055], Dellmo et al.) Dellmo et al. teach memory control cryptography circuit (See sec [0055], Dellmo et al.) Dellmo et al. teach memory program through the host bus interface (See Fig. 3) because it is FPGA program

Art Unit: 2663

system. Memory is through interface and MAC to control the controller 73, which could be memory controller, host device controller (See Fig. 3)

Regarding claim 17, Dellmo et al. teach the circuit board of claim 16. Dellmo et al. do not specifically teach host device and interface are user selectable. However, the computer and user stations could be host device interface to the LAN device. (See sec [0031]-[0032], Dellmo et al.) The computer and user station is selectable by the user. Therefore, it would have been obvious to one who has ordinary skill in the art at the time the invention was made because the selecting host device would give the user to advantage on flexibility of choosing the system in the LAN.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Liou whose telephone number is 571-272-8136. The examiner can normally be reached on 8:00AM - 5:00PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jonathan Liou

3/7/2006



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER